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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,102	12/22/2005	Franz Amtmann	AT03 0035 US1	8092
65913	7590	07/29/2010	EXAMINER	
NXP, B.V. NXP INTELLECTUAL PROPERTY & LICENSING M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			LU, ZHIYU	
			ART UNIT	PAPER NUMBER
			2618	
			NOTIFICATION DATE	DELIVERY MODE
			07/29/2010	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/562,102	<b>Applicant(s)</b> AMTMANN ET AL.	
	<b>Examiner</b> ZHIYU LU	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 17-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 17-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                     |                                                                   |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                         | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 04/29/2010 have been fully considered but they are not persuasive.

Regarding amended claims 1 and 7, applicants argued that Roz in view of Arakawa fail to teach that the ratio of the duration of a load period to the duration of a succeeding off-load period is modified as a function of comparison information "that gives the distance at which the data carrier is situated from the base station".

However, the Examiner does not agree. Despite applicants' argument, Arakawa does teach changing the activation period T in accordance with the results of comparing location of a mobile work machine (data carrier) and the boundary location of the set range (distance situated from the base station, column 39 lines 41-45). So, Roz in view of Arakawa does teach claims 1 and 7.

Thus, rejections are proper and maintained.

Regarding rejections on claims 5 and 11, applicants argued that Roz does not teach detection means designed "to determine the coil voltage arising between the first and second coil terminals".

However, the Examiner does not agree. Despite applicants' argument, Roz's rechargeable active transponder takes energy from voltage between the first and second coil terminals. Inherently, Roz's detection means has to determine voltage received for recharge. Besides, applicants' claims do not limit how specific "to determine the coil

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voltage” has to be. Determining voltage existence is to determine the coil voltage arising between the first and second coil terminals.

Thus, rejections are proper and maintained.

Regarding rejections on claims 6 and 12, applicants argued that Roz does not teach a detection means that is designed "to determine a bleed current through a regulator stage".

However, the Examiner does not agree. A bleed current is a current drawn continuously from a source. Bleeder current is used to stabilize the output voltage of a source. And Roz teaches an operation of continuously recharge and drawn from a source (column 4 lines 26-33, column 8 lines 33-58), wherein energy detection of incoming signal inherently have the determination of a bleed current through a regulator stage. Otherwise, Roz's transponder does not know which voltage source to be used for responding incoming signal detection. So, Roz does teach the argued limitation.

Thus, the rejections are proper and maintained.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 7 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In claim 1, applicants have used the term "item" in referring different subjects, e.g., "an item of energy information", "a preset item of energy information", and "an item of comparison information". It's indefinite for one to identify which subject(s) later uses of "the item" refer to.

The same problem occurs in claims 7 and 18.

### ***Double Patenting***

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

3. Claims 18-23 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 1-6. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-12 and 17-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roz (US6462647) in view of Arakawa et al. (US7283810).

Regarding claim 1, Roz teaches a data carrier for contactless communication with a base station by means of an electromagnetic field (HF) generated by the base station (4),  
having

an antenna coil (32 of Fig. 5) connected to a first coil terminal (360 of Fig. 5) and to a second coil terminal (361 of Fig. 5), in which antenna coil an antenna signal (34 of Fig. 5) can be induced in operation by the electromagnetic field, and having

modulation means (column 4 lines 18-25) for modulating the electromagnetic field, during successive load periods and off-load periods, with transmission data to be communicated to the base station, the electromagnetic field being load-modulated during the load periods by modifying the value of the impedance of a modulation load that is connected at least indirectly to the first coil terminal and the second coil terminal (basically operation of modulating signal, column 2 lines 11-25), and having

detection means for detecting an item of energy information that characterizes the energy content of the antenna signal (column 4 lines 26-44, detect energy for charging),  
and having

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comparator means for comparing the item of energy information detected with a preset item of energy information and for emitting an item of comparison information (column 4 lines 47 to column 5 line 41).

But, Roz does not expressly disclose comparison information that gives the distance at which the data carrier is situated from the base station and having modification means for modifying the ratio of the duration of the load period to the duration of the succeeding off-load period as a function of the item of comparison information.

Arakawa et al. teach modifying duty ratio based on power source determination for saving power consumption (e.g., battery voltage, column 37 line 26 to column 38 line 44), wherein changing the activation period T in accordance with the results of comparing location of a mobile work machine (data carrier) and the boundary location of the set range (distance situated from the base station, column 39 lines 41-45). It would have obviously suited for the data carrier of Roz in the event of defining power source by comparator means.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate changing duty ratio based on defined power source taught by Arakawa et al. into the data carrier of Roz, in order to save power consumption.

Regarding claim 7, Roz and Arakawa et al. teach an integrated circuit of a data carrier for contactless communication with a base station by means of an electromagnetic field generated by the base station as explained in response to claim 1 above.

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Regarding claim 18, Roz and Arakawa et al. teach a data carrier for contactless communication with a base station by means of an electromagnetic field generated by the base station as explained in response to claim 1 above.

Regarding claims 2, 8 and 19, Roz and Arakawa et al. teach the limitations of claims 1, 7 and 18.

Roz and Arakawa et al. teach wherein the modification means are designed to increase the ratio of the duration of the load period to the duration of the succeeding off-load period if the item of comparison information characterizes an item of energy information that has been detected that exceeds the preset item of energy information (in case of using battery power source instead of accumulated power source after comparison in Roz, obviously higher battery power source provides a longer duty ratio in teaching of Arakawa et al. for longer operation time).

Regarding claims 3, 9 and 20, Roz and Arakawa et al. teach the limitations of claims 1, 7 and 18.

Roz and Arakawa et al. teach wherein the modification means are designed for the stepless modification of the ratio of the duration of the load period to the duration of the succeeding off-load period (duty ratio change is obviously stepless since load period and off-load period are adjacent).



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Regarding claims 4, 10 and 21, Roz and Arakawa et al. teach the limitations of claims 1, 7 and 18.

Roz and Arakawa et al. teach wherein the modulation means are designed to modulate the electromagnetic field with a subcarrier signal, the sum of the duration of the load period and the duration of the off-load period corresponding to the length of one cycle of the subcarrier signal (definition for duty cycle).

Regarding claims 5, 11 and 22, Roz and Arakawa et al. teach the limitations of claims 1, 7 and 18.

Roz and Arakawa et al. teach wherein, to detect the energy content of the antenna signal, the detection means are designed to determine the coil voltage arising between the first and second coil terminals (column 4 lines 26-44, detecting and converting signal energy).

Regarding claims 6, 12 and 23, Roz and Arakawa et al. teach the limitations of claims 1, 7 and 18.

Roz and Arakawa et al. teach wherein, to detect the energy content of the antenna signal, the detecting means are designed to determine a bleed current through a regulator stage (column 4 lines 26-33, column 8 lines 33-58).

Regarding claim 17, Roz and Arakawa et al. teach the limitation of claim 1.

Roz and Arakawa et al. teach wherein the modification means outputs an item of ratio information, which indicates the ratio of the load period to the off-load period, to the modulator means (as explained above, Arakawa et al. teach determining ratio of load

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period to off-load period based on power source indication, which obviously outputs the ratio information to the modulator means for duty ratio modification).

### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ZHIYU LU whose telephone number is (571)272-2837.

The examiner can normally be reached on Weekdays: 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571) 272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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July 26, 2010